

ABSTRACT

A cell sorter system that includes a precision pump that causes fluid containing cells to enter an inlet port where the fluid is exposed to source light of one or more
5 wavelengths and where cells scatter light or produce fluorescence by known means, and the scattered light and/or fluorescence is used to detect the presence and position of desired cells. The fluid is passed into a select gate that can be magnetostrictive where it is cause to exit one of a
10 plurality of ports, at least one of these ports receiving the desired cells. A controller controls the precision pump, the detection system, and the select gate so that cells are selected from the fluid. An optional vacuum system can be used to pull fluid or cells out of the
15 selected exit port.